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IS 906 (1988): Specification for Revolving Branch Pipe For Fire Fighting [CED 22: Fire Fighting]



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“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

**SPECIFICATION FOR
REVOLVING BRANCH PIPE
FOR FIRE FIGHTING**

(Third Revision)

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**BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

Indian Standard

SPECIFICATION FOR REVOLVING BRANCH PIPE FOR FIRE FIGHTING

(Third Revision)

0. FOREWORD

0.1 This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standard on 30 November 1988 after the draft finalized by the Fire Fighting Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Revolving branch pipes are normally used for fire fighting operation along with the hoses. Revolving branch pipe is employed to meet those cases where it is necessary to fight fire in situations like ships hold and basements. Indian standard was first published in 1958 and was revised in 1965 and 1972. The third revision has been prepared so as to incorporate modifications

in respect of specification of materials for various components and also performance test as developed by the Ministry of Defence which could be easily conducted in the factory.

0.3 For the purposes of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (revised).

1. SCOPE

1.1 This standard lays down the requirements regarding material, shape, construction and performance test of revolving branch pipe used in fire fighting operations.

2. DESCRIPTION

2.1 The revolving branch pipe shall consist of the following components (see Fig. 1):

- a) Body,
- b) Revolving head,
- c) Cap, and
- d) Steel ball

3. MATERIALS

3.1 Copper Alloys — Copper alloys used for castings or forgings shall conform to the requirements given below:

- a) Sand Grade LTB 2 of IS : 318-1981* or
castings Grade HTB 1 of IS : 304-1981†

*Specification for loaded tin bronze ingots and castings (second revision).

†Specification for high tensile brass ingots and castings (second revision).

b) Die Grade 3 of IS : 292-1983*
castings

c) Hot Grade 1 of IS : 291-1977†
forgings

d) Gravity IS : 1264-1981‡
die castings

3.2 Aluminium alloys used for the castings shall conform to IS designation 4450, 4225 and 4600 of IS : 617-1975§.

3.3 The ball shall be of stainless steel conforming to 4398-1972 ||. The ball race shall be of stainless steel conforming to IS : 4398-1972 || when the components are made of aluminium alloy and of the material mentioned in 3.1 when the components are made of copper alloy.

*Specification for loaded brass ingots and castings (second revision).

†Specification for naval brass rods and sections (suitable for machining and forging) (second revision).

‡Specification for brass gravity die castings, ingots and castings (second revision).

§Specification for aluminium and aluminium alloy ingots and castings for general engineering purposes (second revision).

|| Specification for carbon-chromium steel for the manufacture of balls, rollers and bearing races (first revision).

4. DIMENSIONS AND CONSTRUCTION

4.1 The general shape and principal dimensions shall be as given in Fig. 1. The tolerance where not specified shall be ± 0.5 mm. The nozzles A, B and C shall be located on the circumference of the plane of revolution and shall be inclined at an angle of 60° to the tangent to the circular revolving plane, the nozzles D, E and F shall be in the centre of upper half pointing upwards at an angle of 45° to the vertical, and the nozzles G, H and J shall be in the lower half pointing downwards at an angle of 45° to the vertical.

5. FINISH

5.1 All parts shall be of good finish and clear of burrs and sharp edges. All castings shall be clean and sound and shall be free from plugging, welding or repair of any defects.

6. PERFORMANCE REQUIREMENTS

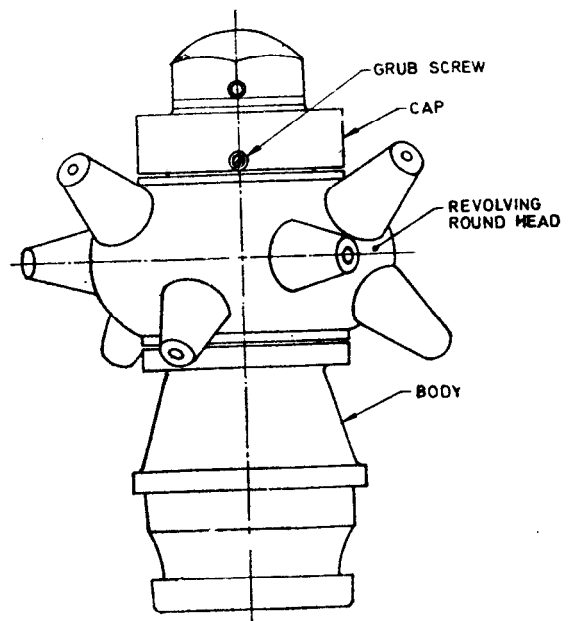
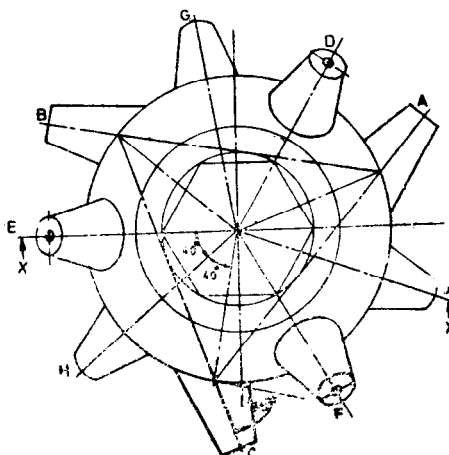
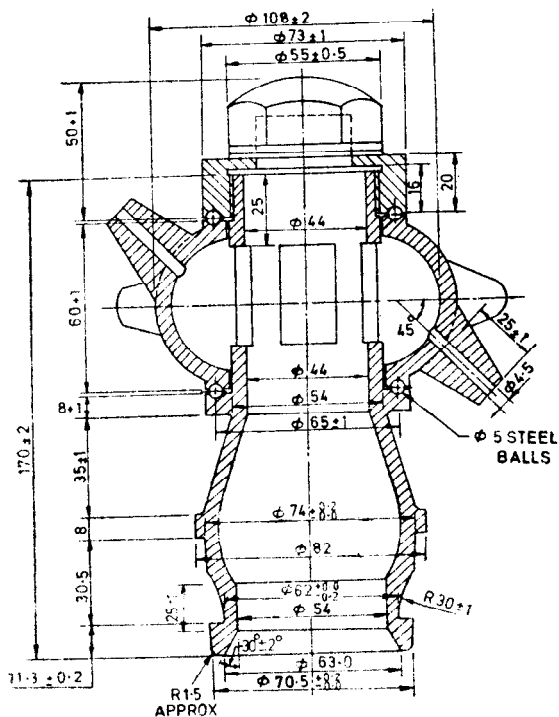
6.1 The minimum pressure required for the branch to start revolving shall be not more than 0.5 MN/m^2 .

6.2 The branch shall be capable of rotating without showing any leakage or failure for a pressure of 1 MN/m^2 for a period of 10 h continuous operation.

7. MARKING

7.1 Each revolving branch shall be clearly and permanently marked with the following information:

- Manufacturer's name or trade mark,
- Year of manufacture, and
- Type of material.



All dimensions in millimetres.

FIG. 1 REVOLVING BRANCH PIPE

7.1.1 The equipment may also be marked with Standard Marks.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard

marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

8. CRITERIA OF CONFORMITY

8.1 Each branch shall conform to the requirements given in this standard.

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Amendments Issued Since Publication

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